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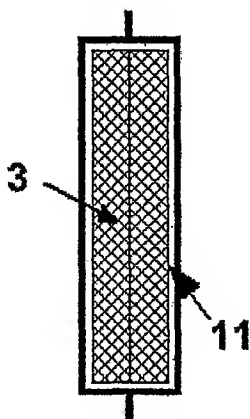
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For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: **INSULATION STRUCTURE FOR THE INTERNAL INSULATION OF A VEHICLE**



(57) Abstract: The present invention relates to an insulation structure for the internal insulation of a vehicle. The insulation structure will contribute to ensuring the fire protection for interior regions of the vehicle from a (conceivable) fire incursion from outside the vehicle environment, so that evacuation of the passengers from the vehicle is made significantly easier. Intended modifications to a typical insulation package will implement an elevation of the fire protection safety for separated interior regions lying proximal to a structure external skin. The insulation structure for the internal insulation of a vehicle comprises an insulation package, which is implemented using an insulation, and a film, which is positioned inside an intermediate space that includes internal paneling and an external skin of the vehicle. The insulation package is implemented homogeneously using a first insulation, whose insulation material is burn-through safe. Otherwise, the insulation package is constructed using distinct insulation regions, which are implemented using the first insulation and a second insulation, whose insulation material is burn-through unsafe. These insulation regions are positioned along a finite series and laid next to one another up to a terminating insulation region, whose insulation material is exchanged in alternating sequence. Otherwise, the insulation package is implemented homogeneously using a second insulation, whose insulation material is burn-through unsafe (fire endangered, flammable), multiple burn-through safe barrier layers being integrated in the second insulation.

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2005/000039

## A. CLASSIFICATION OF SUBJECT MATTER

B60R13/08 B64C1/40

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B60R B64C F16L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 2003, no. 02, 5 February 2003 (2003-02-05) & JP 2002 283485 A (NICHIAS CORP), 3 October 2002 (2002-10-03) abstract	1, 16
X	WO 02/098707 A (OWENS CORNING; TILTON, JEFFREY, A; PATEL, BHARAT, D; BLOCK, THOMAS, T;) 12 December 2002 (2002-12-12)	1
Y	abstract; figures 1,4 page 3, line 31 - page 4, line 32 page 5, line 25 - line 32	16
Y	US 5 240 527 A (LOSTAK ET AL) 31 August 1993 (1993-08-31) abstract; figures 1-10 column 3, line 22 - column 6, line 22	16

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
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- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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- \*Z\* document member of the same patent family

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International Application No  
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 23, 10 February 2001 (2001-02-10) & JP 2001 171030 A (TOKIWA ELECTRIC CO LTD), 26 June 2001 (2001-06-26)	1
A	abstract	2, 3, 16
A	----- PATENT ABSTRACTS OF JAPAN vol. 014, no. 237 (M-0976), 21 May 1990 (1990-05-21) & JP 02 062500 A (IMAE KOGYO KK; others: 02), 2 March 1990 (1990-03-02) abstract	1-3
X	----- PATENT ABSTRACTS OF JAPAN vol. 1996, no. 02, 29 February 1996 (1996-02-29) & JP 07 269777 A (DAIDO STEEL SHEET CORP), 20 October 1995 (1995-10-20) abstract; figure 7	1, 16
X	----- DE 88 12 026 U1 (CHEMIE-WERK WEINSHEIM GMBH, 6520 WORMS, DE) 9 February 1989 (1989-02-09) the whole document	1, 16
A	----- US 3 811 997 A (YUAN E, US) 21 May 1974 (1974-05-21) column 1, line 18 - line 45 -----	1, 16

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP2005/000039

### Box II Observations where certain claims were found unsearchable (Continuation of Item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box III Observations where unity of invention is lacking (Continuation of Item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

#### Remark on Protest

- ☒ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claim: 1 16

Insulation package constituted of a film and an homogeneous burn-through safe insulation material .  
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2. claims: 2 4 5 11-17 19

Insulation package constituted of a film and alternating layers of burn-through safe and burn-through unsafe insulation materials.  
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3. claims: 3 6-19

Insulation package constituted of a film and an homogeneous burn-through unsafe material in which burn-through safe barrier layers are integrated.  
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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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